AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-18. (Canceled)

19. (Currently Amended) A method of producing a digital printing ink, comprising:

dispersing ~~coloring agents~~ dispersing dyes in a mixture of oligomers and monomers with a maximum particle size of 1 micron;

diluting same with a mixture of monofunctional and multifunctional acrylic monomers until a viscosity of between [[30]] 10 and 30 centipoises, measured at 25 °C, is obtained;

introducing a photoinitiator system, which causes the polymerization of the oligomers and monomers from the first step, in the presence of radiation; and

subjecting the resulting ink to a filtering process, to obtain particles by means of at least one filter, finalizing with a 1 micron filter characterized by the production of free radicals that react with the oligomers and monomers when the resulting ink is printed on a media and the referred radiation source is applied to this ink, fracturing the molecules of the photoinitiator system, thus producing a polymer that sets the dispersing ~~coloring agents~~ dispersing dyes on the media.

20. (Currently Amended) The method according to claim 19, characterized by having ~~Isobornyl Acrylate~~ isobornyl acrylate among the ~~multifunctional~~ monofunctional acrylic monomers, with a ratio of 25% to 55% wt. of total acrylic monomers.

21. (Currently Amended) The method according to claim 19, characterized by having bifunctional and trifunctional multifunctional acrylic monomers with a ratio of 44% to 75% wt. of total acrylic monomers.

22. (Currently Amended) The method according to claim 21, characterized by having ~~Hexandioldiacrylate~~ hexandioldiacrylate among the bifunctional acrylic monomers.

23. (Currently Amended) The method according to claim 21, characterized by having ~~Tripropyleneglycoldiacrylate~~ tripropyleneglycoldiacrylate among the bifunctional acrylic monomers.

24. (Currently Amended) The method according to claim 21, characterized by having ~~Trimethylolpropanetriacrylate~~ trimethylolpropanetriacrylate among the trifunctional acrylic monomers.

25. (Previously Presented) The method according to claim 19, characterized by having the source of radiation be at least one source of ultraviolet light.

26. (Previously Presented) The method according to claim 19, characterized by having the source of radiation be a bombardment of electrons.

27. (Currently Amended) A digital printing ink produced according to the method of claim 19 [[1]], wherein ~~coloring agents~~ dispersing dyes are dispersed in an organic medium dispersed in a mixture of oligomers and monomers with a maximum particle size of 1 micron; diluting it with a mixture of monofunctional and multifunctional acrylic monomers until a viscosity of between 10 and 30 centipoises, measured at 25 °C, is obtained; with a photoinitiator system which causes the polymerization of the oligomers and monomers from the first step, subjecting the resulting ink to at least one filter, finalizing with a 1 micron filter characterized by having:

- ~~Isobornyl Acrylate~~ isobornyl acrylate as the ~~multifunctional~~ monofunctional acrylic monomer, with a ratio of 25% to 55% wt.; and
- bifunctional and trifunctional multifunctional acrylic monomers, with a ratio of 44% to 75% wt..

28. (Currently Amended) The ink according to claim 27, characterized by having ~~Hexandioldiacrylate~~ hexandioldiacrylate among the bifunctional acrylic monomers.

29. (Currently Amended) The ink according to claim 27, characterized by having ~~Tripropyleneglycoldiacrylate~~ tripropyleneglycoldiacrylate among the bifunctional acrylic monomers.

30. (Currently Amended) The ink according to claim 27, characterized by having ~~Trimethylolpropanetriacrylate~~ trimethylolpropanetriacrylate among the trifunctional acrylic monomers.